

## Office Memorandum • UNITED STATES GOVERNMENT

TO : Chief, TSS/DDP

DATE: 5 December 1956

Attn : [REDACTED]

25X1

R&amp;D/APD

FROM : Chief, Administration and Training Staff/OS

SUBJECT: R&amp;D Technical Equipment, request for [REDACTED]

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1. For some time this office has had under consideration replacement of the BELL Tape Recorders currently used by [REDACTED] in operational support activities. Experience has shown a need for recorders embodying features peculiar and necessary to this type of activity which are lacking in the BELL.

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2. Recent testing of an AMPEX recorder, modified by your office in accordance with certain recommendations of this office, have shown this unit to be well suited, as modified, for the usage intended. In addition to modifications in the recording unit proper, as indicated below, the unit was removed from the standard carrying case in which it comes from the manufacturer [REDACTED]

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3. A prototype model has been turned over to [REDACTED] for study, necessary testing and evaluation.

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4. On the basis of examination and testing of this recorder, by OS facilities, the following conclusions were reached and recommendations made for the modifications to be incorporated in AMPEX recorders proposed for issue to [REDACTED]

RECORDER:

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- The AMPEX was selected for its high-quality construction, simplicity of operation, and ruggedness, as well as incorporation of basic features considered desirable for its contemplated use.
- The prototype recorder has been modified from variable to single speed operation (3 3/4"). Recorders issued should similarly be modified for single speed operation.
- It should be fused and the fuse should be readily accessible, mounted on the top control panel, if possible, where it can be replaced easily and quickly.

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JUST	22	NEXT REV	2010	AUTH:	HR TS-2

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- d. Recording heads should be of the plug-in type, again for the purpose of ready replacement.
- e. The three-prong microphone receptacle should be removed, if feasible, and replaced with a conventional telephone jack receptacle.
- f. A separate motor switch should be incorporated in the recorder so that it can be used for monitoring with the reel motor off.
- g. A relay switch should be added so that the recorder motor can be turned on by remote control. A six-volt relay with a Jones #301 receptacle on the panel is suggested.
- h. The addition of a footage indicator is recommended.

CASE AND MOUNTING:

- i. The recorder should be mounted in a conventional man's suitcase. A suitcase of "Samsonite" or a similar sturdy material, in a conservative color, is suggested. The suitcase should have a removable cover and it should not be the type in which the cover and bottom meet on a bias.
- j. The suitcase should be somewhat larger than the one in which the prototype is mounted. The recorder should be centrally mounted so that the suitcase is well balanced for carrying, with its longitudinal axis at right angles to the longitudinal axis of the suitcase, permitting use of the free space at the ends of the suitcase for storage of spare reels, tools, cable, etc.
- k. The recorder should be firmly mounted in the suitcase. The metal container and the elaborate padding of the prototype are not necessary. Mounting by means of four bars, one at the top and bottom of each of the two sides of the recorder, rigidly fastened to the sides and bottom of the suitcase, with the recorder mechanism protected by some type of an expanded metal grill at the sides, is suggested.

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5. In addition, the following items of accessory equipment were recommended for issue [redacted]

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ACCESSORY EQUIPMENT:

- l. Two MINI-MIX units [redacted] These units, manufactured by SWITCHCRAFT, plug into the input receptacle of the recorder and permit use of two microphones, with individual volume controls for each microphone.
- m. A pencil-type soldering iron, such as the one manufactured by the Ungar Company, #776 handle and #1235 heating unit with spare pyramid tips.
- n. A volt-ohmmeter (20,000 ohms per volt-D.C. scale)
- o. A set of miniature Kraeuter pliers (diagonals, needle-nose, and long flat-nose pliers).

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6. It is requested that your office take appropriate steps to obtain [redacted] with the incorporation of modifications recommended, if feasible. The method of effecting the modifications will be left to your discretion. It may be determined that your office could handle all or a major portion of the changes. In some instances, it may be found that the modifications may be made more economically and efficiently by the manufacturer.

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~~AUTHORIZING OFFICER~~  
~~\_\_\_\_\_~~  
~~OBJECT CLASS~~  
~~CHARGE TO ALLOTMENT NO.~~  
~~OBLIGATION REFERENCE NO.~~  
~~I CERTIFY THAT FUNDS ARE AVAILABLE~~

I CERTIFY THAT FUNDS ARE AVAILABLE  
OBLIGATION REFERENCE NO. 730  
CHARGE TO ALLOTMENT NO. 1-7130-30  
OBJECT CLASS \_\_\_\_\_

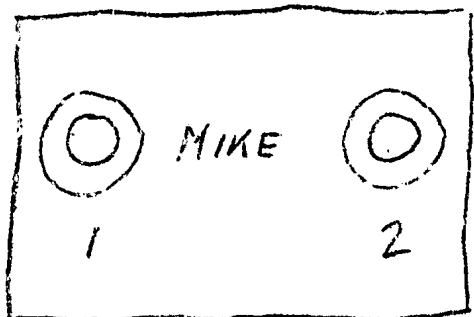
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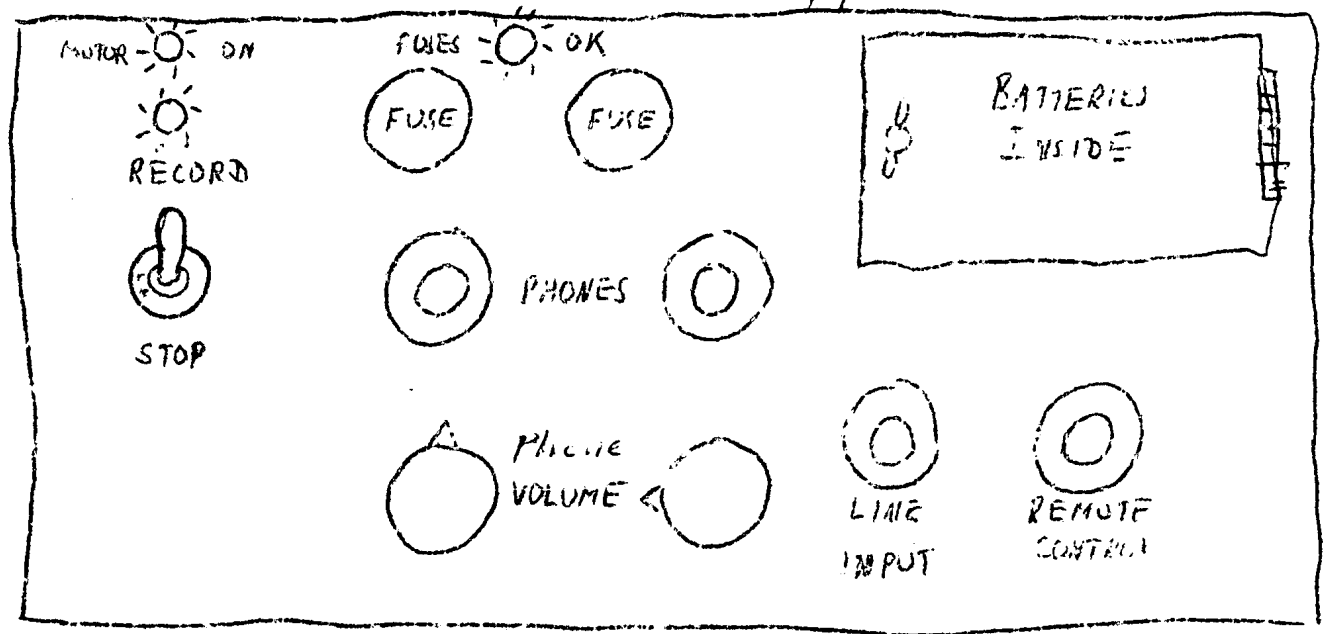
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BOOK NO. \_\_\_\_\_ PROJECT: IMPYEX 601 DATE 12/11/56 RESEARCH AND ENGINEERING NO. \_\_\_\_\_ PAGE 1-1



PANEL 1  
Parallels two mikes  
 AC



PANEL 2

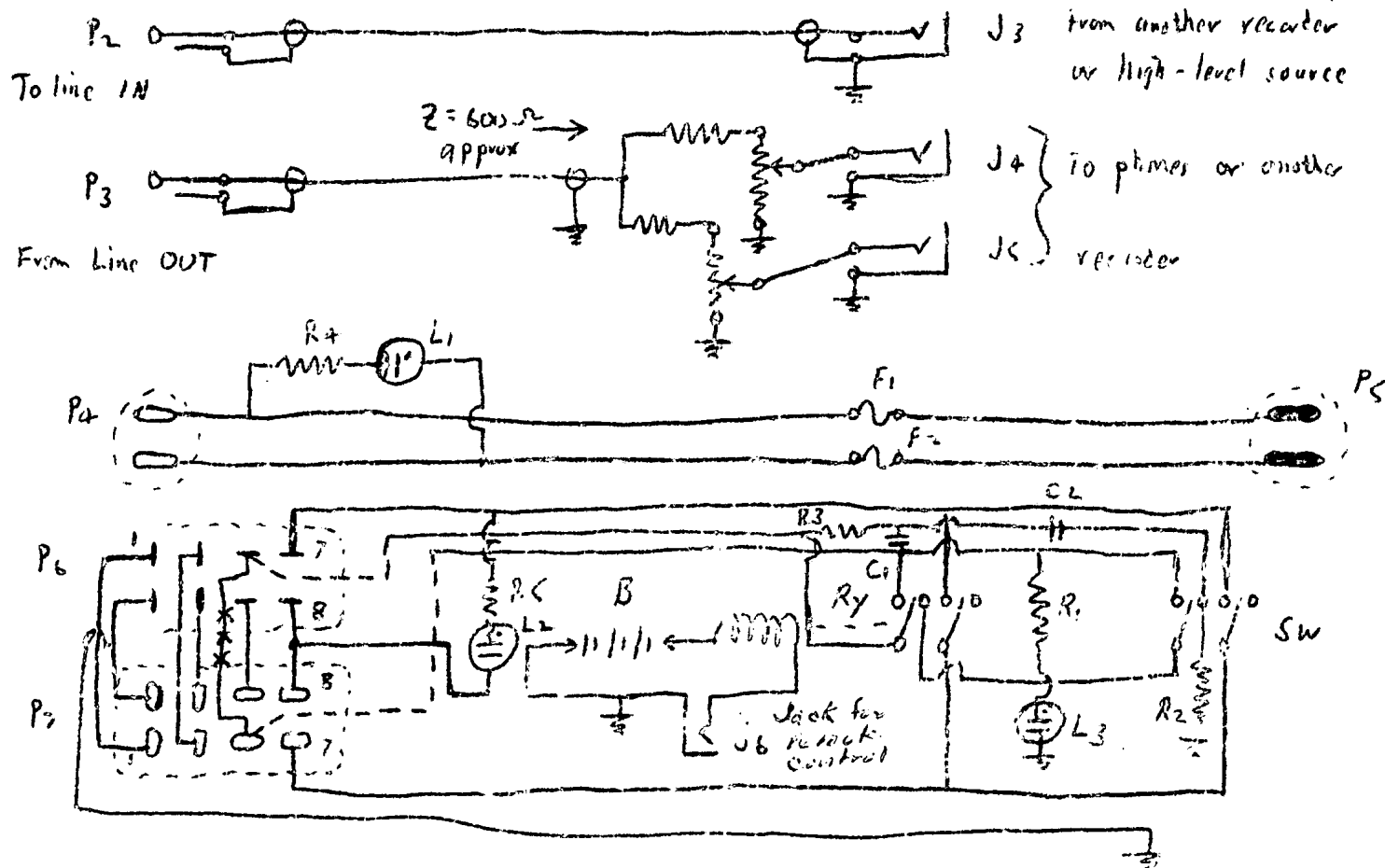
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WORK DONE: \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT: APRIL 60!

DATE \_\_\_\_\_

Aux PANEL #2. Cont'd.!



J3, J4, J5, J6 Single-circuit telephone jacks

P2 Miniature single-circuit telephone plug

P3 ~~Miniature~~ Single " " "

P4 Female AC plug

P5 Male " "

P6 Male 8-wire plug, Circle-Jones P-308-FHT, -FHT-L, or -FHT

P7 Female " " " " " S-308-FHT, -FHT-K

Sw DPDT toggle

Ry DPDT battery operated

R3, R4, R1 470K

R2 20K 10W.

R3 100Ω

C1, C2 .01 μf 600V

F1, F2 1 Amp 3AG-5 fuse in panel holder

L1, L2, L3 Neon lamp

B Battery to run relay, with clips for connecting

WORK DONE: \_\_\_\_\_

DATE \_\_\_\_\_

PROJECT: AIAC 501

DATE \_\_\_\_\_

Accessories to be furnished, stowage, etc.

Stowage for jumper plug removed from Ampex

Spare fuses + stowage

Shielded patch cord, telephone plug each end, long enough to connect 2 receivers, + stowage.

Spare battery + stowage

Cord, 25' long, telephone plug one end, pendant switch other end, + stowage.

Stowage for spare rods

" " paper + pencils

" " several telephone plugs

" " wire

" " Ampex manual

" " microphone

Manual describing operation & circuit details of recorder section, including details  
as to how to restore to original condition for commercial maintenance.

Pictorial operating instructions in lid.

Switch templates

Tape lubricant + head cleaner

Spare tubes (5879 + 12AX7)

2 Phillips screwdrivers

Straight screwdriver

Wire cutters

Wire stripper

Knife

Spare tubes

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Poly bags or what? for stowage

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WORK DONE: \_\_\_\_\_

DATE \_\_\_\_\_

PROJECT: Amper 101

DATE \_\_\_\_\_

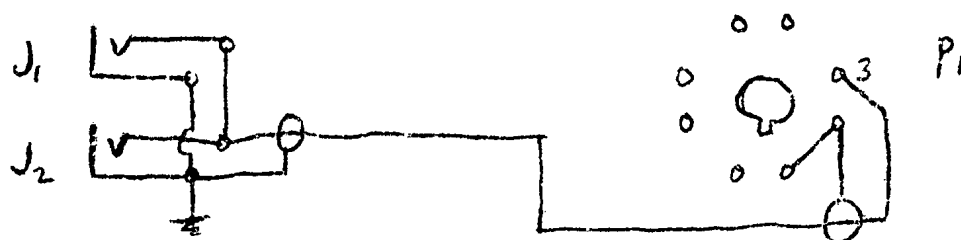
Modification to meet requirements of O.S. :

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Provide 2 auxiliary panels as follows :

AUX PANEL #1 :

Has 2 jacks in parallel connected to input grid via dummy plug socket

J<sub>1</sub>, J<sub>2</sub> Single-circuit telephone jacksP<sub>1</sub> Amphenol 86-PM8 shielded male octal plug.AUX PANEL #2 :

Has 1 line input jack

Has 2 line output jacks (for phono) with individual volume controls, and the whole to terminate Amper output in 600  $\Omega$  approx.

Routes Amper main 115 volt input, thru 2 fuses (1 amp)

Has 2 pendant Jones plugs inserted in Amper main cable, carrying line all loads except motor, and possibly B+

Has toggle switch controlling motor } wire splice suppression on contacts.  
Has relay controlling motor } might break relay B+ also

Has battery terminal or compartment

Has jack or terminal for remote switch

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WORK DONE: \_\_\_\_\_

DATE \_\_\_\_\_

SENDER WILL CHECK CLASSIFICATION TOP AND BOTTOM

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CENTRAL INTELLIGENCE AGENCY  
OFFICIAL ROUTING SLIP

TO	NAME AND ADDRESS	INITIALS	DATE
1	<div style="border: 1px solid black; width: 150px; height: 100px; display: flex; align-items: center; justify-content: center; font-size: 40px; opacity: 0.5;">CONFIDENTIAL</div>		
2			
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6			

<input type="checkbox"/>	ACTION	<input type="checkbox"/>	DIRECT REPLY	<input type="checkbox"/>	PREPARE REPLY
<input type="checkbox"/>	APPROVAL	<input type="checkbox"/>	DISPATCH	<input type="checkbox"/>	RECOMMENDATION
<input type="checkbox"/>	COMMENT	<input type="checkbox"/>	FILE	<input type="checkbox"/>	RETURN
<input type="checkbox"/>	CONCURRENCE	<input type="checkbox"/>	INFORMATION	<input type="checkbox"/>	SIGNATURE

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Remarks: The attached proposal re modification of Ampex 601 recorders was delivered by

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The price includes the recorders proper. If desired  can submit a fixed-price proposal, or one wherein Phase I is cpff and Phase II is fixed price.

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In my opinion the proposal is satisfactory and the price is reasonable.

I think we should delay this job no longer, and accept the  proposal if it is satisfactory to OS.

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ILLEGIB

FOLD HERE TO RETURN TO SENDER

FROM: NAME, ADDRESS AND PHONE NO.

DATE

1/25/57

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UNCLASSIFIED	CONFIDENTIAL	X	SECRET
CENTRAL INTELLIGENCE AGENCY <b>OFFICIAL ROUTING SLIP</b>			
TO	NAME AND ADDRESS	INITIALS	DATE
1			12/13
2			1/29
3	- Has not heard from		25X1
4	as yet. If he does not call on 12/14		25X1
5	I will call him Mon.		
6			ILLEGIB
ACTION		DIRECT REPLY	PREPARE REPLY
APPROVAL		DISPATCH	RECOMMENDATION
COMMENT		FILE	RETURN
CONCURRENCE		INFORMATION	SIGNATURE
<b>Remarks:</b> Attached concerns a modification of Ampex recorders desired by OS. A few days ago [redacted] and I met with the OS representative [redacted] 2512 I Bldg [redacted] and discussed this informally. I suppose this should be exhibited to [redacted] or [redacted] and logged in. [redacted] would like us to answer as soon as possible stating what portions of this are feasible, and whether the desired time schedule of 90 days can be met. He is also interested in knowing whether he must fund this, or as suggested by [redacted] whether it might be done under R&D. A decision must be made on [redacted] vs a contractor.			
FOLD HERE TO RETURN TO SENDER			
FROM: NAME, ADDRESS AND PHONE NO.			DATE
[redacted]			12/6/56
UNCLASSIFIED	CONFIDENTIAL	X	SECRET